

**REMARKS**

Claims 1-11 are pending in this application with claims 1, 6 and 11 being amended. Claims 1, 6 and 11 were amended to clarify the inventiveness of the present invention. Support for the amendments to the claims is found throughout the specification and specifically on Page 5, lines 23-31.

**Objection to Claim 11**

Claim 11 is objected to for certain informalities. Claim 11 has been amended in accordance with the comments of the Examiner to recite a transceiver. Claim 11 has been further amended to be in independent form directly including the limitations of claims 1 and 6. In view of the amendments to claim 11 it is respectfully submitted that this objection is satisfied and should be withdrawn.

**Rejection of Claim 6 under 35 USC § 102(b)**

Claim 6 is rejected under 35 USC 102(b) as being anticipated by Sherer (US Patent No. 5,790,959).

The present invention as claimed in claim 6 recites a radiofrequency transmitter. The transmitter includes a first mixer which converts a first signal into a second signal by frequency transposition. The conversion is performed using a transposition signal coming from a frequency synthesizer. A filtering device converts the second signal into a third signal by selecting part of the spectrum of the second signal. A second mixer converts the third signal into a fourth signal by a fixed frequency transposition. The transmitter also contains a radio wave transmission device which converts the fourth signal into an electromagnetic wave. The filtering device includes at least two band-pass filters provided with a switching device which makes possible selection of one of the filters. The filters have separated bandwidths. Claim 6 has been formally amended to more clearly specify that the filters have separated bandwidths.

The present invention as claimed in claim 6 is concerned with providing a transmitter having a high bandwidth using non-contiguous bands. “The use of a conventional device such as that in Figure 1 is not possible for...the frequency synthesizer 6 would have to operate over a 1.9 GHz range” (page 2, lines 25-28). The present invention uses two switched filters to solve the problem of using a very broad range. “The use of two switched filters makes it possible to use a single synthesizer to scan the at least two sub-bands of the networking bandwidth...the frequency synthesizer operates for one sub-band in superdyne mode and for the other sub-band in infradyne mode” (page 3, lines 17-22). Accordingly, the receiver “operates within a high frequency range...and it has a bandwidth spread out over a spectral width  $w$  (Fig. 4a) with, for example,  $w$  equal to 1.9 GHz...The working part of the bandwidth is split into two sub-bands B1 and B2 (Fig. 4a)” (page 4 lines 37-40 and page 5, lines 1-3). In the current example “filters 51 and 52 are band-pass filters which let through the image bands B’1 and B’2 (Fig. 4b) of the sub-bands B1 and B2...The bands B’1 and B’2 correspond, for example, to the 1.3 to 1.8 GHz and 2.7 to 3.2 GHz bands” (page 5, lines 26-31).

Scherer (5,790,959) discloses a programmable band select and transfer module for local multipoint distribution service base stations. The band select is made up of transmit programmable band select transfer modules (tPST) and receive programmable band select transfer modules (rPST). “The rPST and tPST modules each select a spectral segment from an applied uwave signal by first shifting the frequency of the uwave signal so that the spectral segment programmed to be selected is disposed about a predetermined IF frequency. Once shifted to the IF frequency, the spectral segment is selected by filtering the frequency shifted uwave signal using one of multiple fixed frequency filters” (Column 2, lines 23-30). “Each of the multiple fixed frequency filters has a different bandwidth, enabling spectral segments of various bandwidths to be selected by alternately switching between the multiple filters” (Column 2, lines 31-35). These filters are “multiple band selection filters” (Column 4, line 31). “Since the filtering takes place at this fixed predetermined IF frequency  $F$ , the filters 39a, 39b 39c can be optimized for selectivity” (Column 4, lines 37-39).

It is seen that “the filtering takes place at this fixed predetermined IF frequency F” in Column 4, lines 37-39. Even though the filters are disposed about a specific predetermined IF frequency “each of the multiple fixed frequency filters has a different bandwidth” (Column 2, lines 31&32). In figure 2 and the corresponding discussion in column 3- last paragraph and column 4, it is clear that the filters 39a, 39b, 39c are centered on the same frequency, i.e. 1.2 GHz but that their bandwidths are different from one to another. Scherer neither discloses nor suggests having separated bandwidths for the filters, which means that the pass-band filters are centered on different frequencies. Thus, Scherer neither discloses nor suggests “at least two band-pass filters provided with switching means which make it possible to select only one of the filters wherein the filters have separated bandwidths” as claimed in claim 6 of the present invention.

In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Scherer showing the above discussed features as claimed in Claim 6. It is thus further respectfully submitted that claim 6 is not anticipated by Biondi et al. It is thus, further respectfully submitted that this rejection is satisfied and should be withdrawn.

#### **Rejection of Claims 1 and 11 under 35 USC § 103(a)**

Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherer (US 5,790/959).

The present invention as claimed in claim 11 recites a radiofrequency transceiver. Claim 1 is directed to a receiver. The receiver includes a radiowave receiving device which converts an electromagnetic wave into a first signal. A first mixer converts the first signal into a second signal by a fixed frequency transposition. A filtering device converts the second signal into a third signal by selecting part of the spectrum of the second signal. A second mixer converts the third signal into a fourth signal by frequency transposition. The conversion is preformed using a transposition signal coming from a frequency synthesizer. The filtering device includes at least two

band-pass filters provided with a switching device which make possible selection of only one of the filters. The filters have separated bandwidths. The transceiver is made up of both the transmitter and the receiver (the receiver as described above). Claims 1 and 11 have been formally amended to clarify that the filters have separated bandwidths.

As described above with reference to the arguments made concerning claim 6, Scherer discloses a programmable band select and transfer module for local multipoint distribution service base stations... “Once shifted to the IF frequency the spectral segment is selected by filtering the frequency shifted wave signal using one of multiple fixed frequency filters” (Column 2, lines 23-30), “each of the multiple fixed frequency filters has a different bandwidth” (Column 2, lines 31&32). The Examiner suggests that even though Scherer teaches of a transmitter the teaching of a receiver with the same standards is a method of obviousness.

As argued above, in reference to claim 6, it is seen that “the filtering takes place at this fixed predetermined IF frequency F” in Column 4, lines 37-39. Even though the filters are disposed about a specific predetermined IF frequency “each of the multiple fixed frequency filters has a different bandwidth” (Column 2, lines 31-32). In figure 2 and the corresponding discussion in column 3- last paragraph and column 4, it is clear that the filters 39a, 39b, 39c are centered on the same frequency, i.e. 1.2 GHz but that their bandwidths are different from one to another. Scherer neither discloses nor suggests having separated bandwidths for the filters, which means that the pass-band filters are centered on different frequencies. Thus, therefore, it is respectfully submitted that Scherer neither discloses nor suggests “at least two band-pass filters provided with switching means which make it possible to select only one of the filters wherein the filters have separated bandwidths” as claimed in claims 1 and 11 of the present invention.

In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 compliant enabling disclosure in Scherer showing the above discussed features as claimed in Claims 1 and 11. It is thus further

respectfully submitted that claims 1 and 11 are not anticipated by Scherer. It is thus, further respectfully submitted that this rejection is satisfied and should be withdrawn.

**Rejection of Claims 2- 5, 7-10 under 35 USC § 103**

Claims 2-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherer in view of the Prior Art admitted by Applicant.

Claims 2-5 of the present invention relate to a receiver while claims 7-10 of the present invention relate to a transmitter. The present invention as claimed in claims 2 and 7 recite a radiofrequency receiver and transmitter, respectively, with two filters having passbands of the same width. Additionally, claims 3 and 8 disclose that the frequency synthesizer in a receiver and transmitter, respectively, delivers a signal whose frequency varies within a frequency range of the same width as the bandwidths of the two filters. Furthermore, claims 4 and 9 disclose that the frequency range in a receiver and transmitter, respectively, is centered between the two passbands. Moreover, claims 5 and 10 detail in a receiver and transmitter, respectively, the filtering means comprised of three filters provided with switching means which make it possible to select only one of the filters, two filters having the same bandwidth, the third filter having a bandwidth twice as broad, and in that the frequency synthesizer delivers a signal whose frequency varies within a first frequency range, the width of which corresponds to the bandwidth of the two filters having the same bandwidth and within a second range which corresponds to twice the first range.

As described above in reference to the arguments made for claims 1 and 6, Scherer discusses a programmable band select and transfer module for local multipoint distribution service base stations... "Once shifted to the IF frequency the spectral segment is selected by filtering the frequency shifted wave signal using one of multiple fixed frequency filters" (Column 2, lines 23-30), "each of the multiple fixed frequency filters has a different bandwidth" (Column 2, lines 31&32). The Examiner suggests that even though Scherer teaches of a transmitter the teaching of a receiver with the same standards is a method of obviousness.

As argued above, with reference to claims 1 and 6, it is seen that “the filtering takes place at this fixed predetermined IF frequency F” in Column 4, lines 37-39. Even though the filters are disposed about a specific predetermined IF frequency “each of the multiple fixed frequency filters has a different bandwidth” (Column 2, lines 31-32). If we refer to figure 2 and to the explanation column 3- last paragraph and column 4, it is clear that the filters 39a, 39b, 39c are centered on the same frequency, i.e. 1.2 GHz but that their bandwidths are different from one to another. It is not at all described or suggested to have separated bandwidths for the filters, that means that the pass-band filters are centered on different frequencies. Therefore, it is respectfully submitted that Scherer neither discloses nor suggests “at least two band-pass filters provided with switching means which make it possible to select only one of the filters wherein the filters have separated bandwidths” as claimed in claim 1 and 6 of the present invention.

Claims 2-5 and 7-10 are dependant on claim 1 and claim 6 respectively. It is respectfully submitted that in view of the above arguments that Claim 1 and Claim 6 be accepted that Claims 2-5 and 7-10 be accepted on the basis of dependence to independent claims of a patentable system.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Application No. 09/874,341

Attorney Docket No. PF000056

No fee is believed due. However, if a fee is due, please charge the additional fee  
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Respectfully submitted,  
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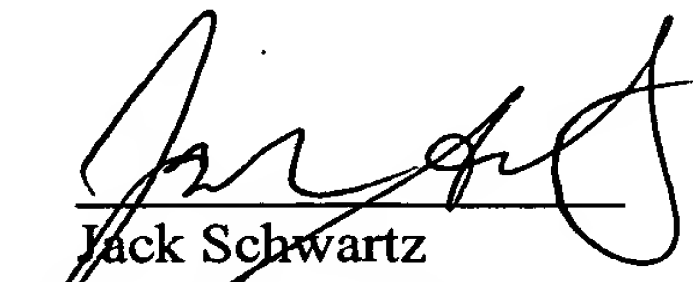
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